Performance Metrics
for EMS Self Assessment & Management Review

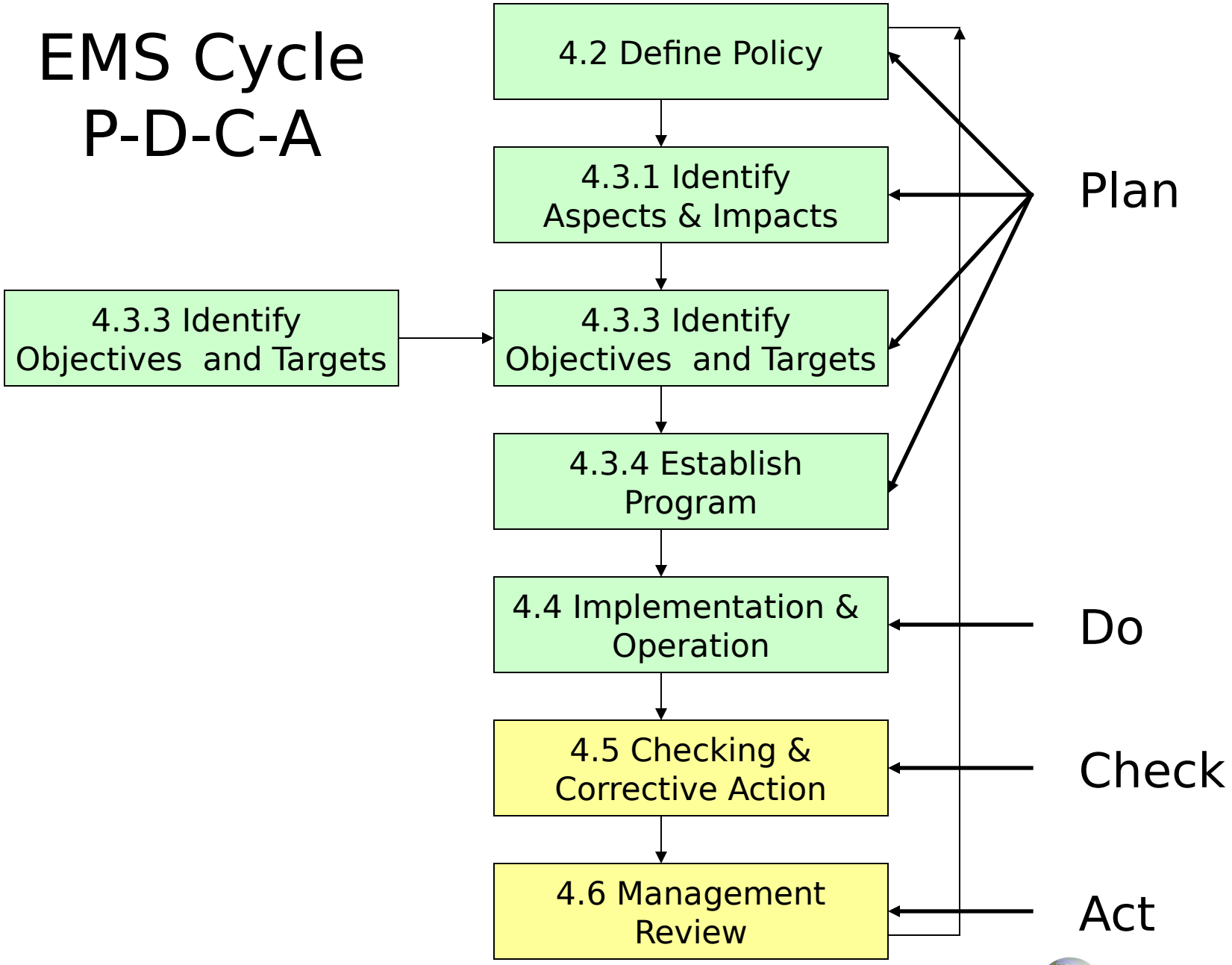
30th Environmental and Energy Symposium & Exhibition

April 5 – 8, 2004

Agenda

- EMS Cycle – P-D-C-A
- Key Elements of EMS
- Role of Self Assessment
- Role of Management Review
- Performance Metrics
- Software Demonstration
- Summary

EMS Cycle P-D-C-A



Key Elements of EMS

- 4.5 Checking and Corrective Action
  - 4.5.1 Monitoring and Measurement
  - 4.5.2 Nonconformance and Corrective and Preventive Action
  - 4.5.3 Records
  - 4.5.4 Environmental Management System Audit
- 4.6 Management Review

Role of Self Assessment

- EMS Audit = Self Assessment
  - Determine whether EMS conforms to planned arrangements
  - Determine whether EMS has been properly implemented and maintained
  - Provide information to management on EMS effectiveness

Role of Management Review

- Periodically review EMS to ensure continuing suitability, adequacy, and effectiveness
- Ensure necessary information on EMS effectiveness is gathered
- Evaluate the need for changes to policy, objectives, and other elements of EMS
- Document all reviews
- Plan to act on EMS audit results demonstrating commitment to continual improvement

Performance Metrics

- For self assessment and management review:
  - Ability of the organization to meet its commitment to perform self assessments in agreed-to timeframes.
  - Ability of the organization to identify corrective actions and resolve non-conforming conditions.
  - Ability of the organization to identify areas requiring focused management attention.

ECM – Software Demonstration

Effectively managing accountability for compliance at each command, installation and activity.

A Dynamic Team: You, AMS & ICS

- Comprehensive solutions for risk management, compliance management, and management systems

- For additional information, contact:

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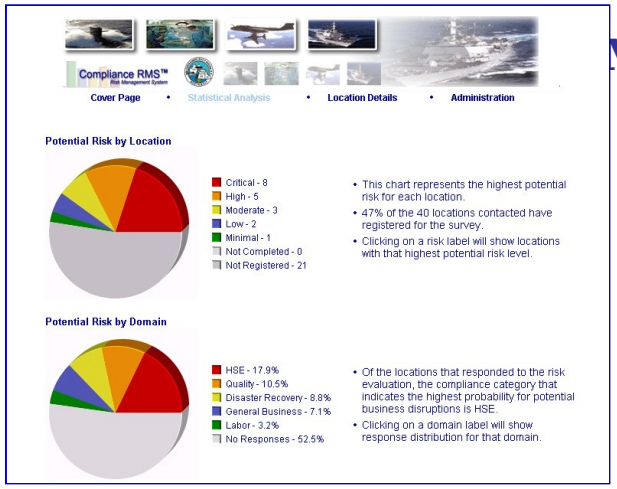
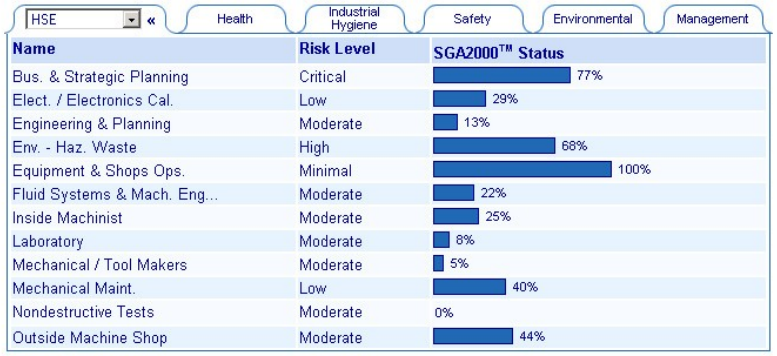
Step I – Understanding Risk

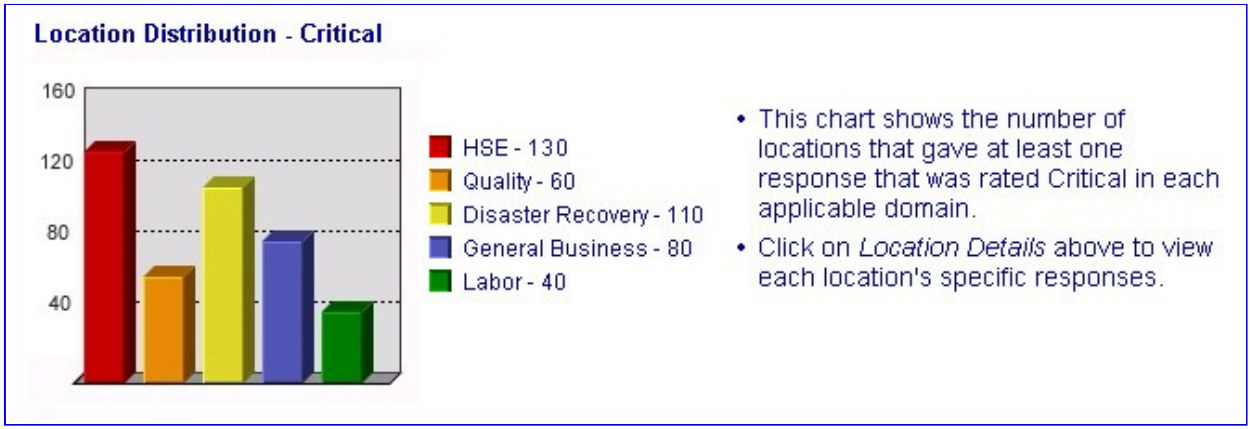
- **Identifies risks within each code; based on *your* criteria.**
- **Address compliance concerns; HSE, Quality, Security, etc.**
- **Minimal internal resources required for implementation.**
- **100% customizable web-based interface.**


Compliance RMS™
Cover Page • Statistical Analysis • Location Details • Administration
Potential Risk by Location
Critical - 8
High - 5
Moderate - 3
Low - 2
Minimal - 1
Not Completed - 0
Not Registered - 21
• This chart represents the highest potential risk for each location.
• 47% of the 40 locations contacted have registered for the survey.
• Clicking on a risk label will show locations with that highest potential risk level.
Potential Risk by Domain
HSE - 17.9%
Quality - 10.5%
Disaster Recovery - 8.8%
General Business - 7.1%
Labor - 3.2%
No Responses - 52.5%
• Of the locations that responded to the risk evaluation, the compliance category that indicates the highest probability for potential business disruptions is HSE.
• Clicking on a domain label will show response distribution for that domain.

Minimize potential business disruptions.



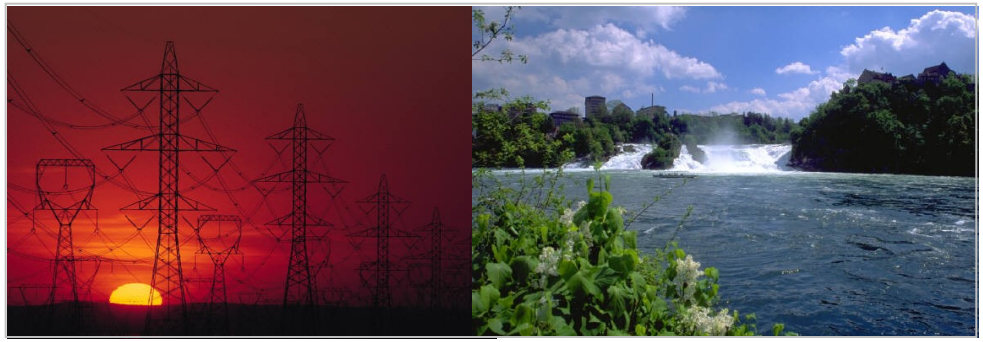
Name	Risk Level	SGA2000™ Status
Bus. & Strategic Planning	Critical	77%
Elect. / Electronics Cal.	Low	29%
Engineering & Planning	Moderate	13%
Env. - Haz. Waste	High	68%
Equipment & Shops Ops.	Minimal	100%
Fluid Systems & Mach. Eng...	Moderate	22%
Inside Machinist	Moderate	25%
Laboratory	Moderate	8%
Mechanical / Tool Makers	Moderate	5%
Mechanical Maint.	Low	40%
Nondestructive Tests	Moderate	0%
Outside Machine Shop	Moderate	44%


Location Distribution - Critical
160
120
80
40
HSE - 130
Quality - 60
Disaster Recovery - 110
General Business - 80
Labor - 40
• This chart shows the number of locations that gave at least one response that was rated Critical in each applicable domain.
• Click on Location Details above to view each location's specific responses.

Way Forward

- **Now that you understand where risks are . . .**

What next?



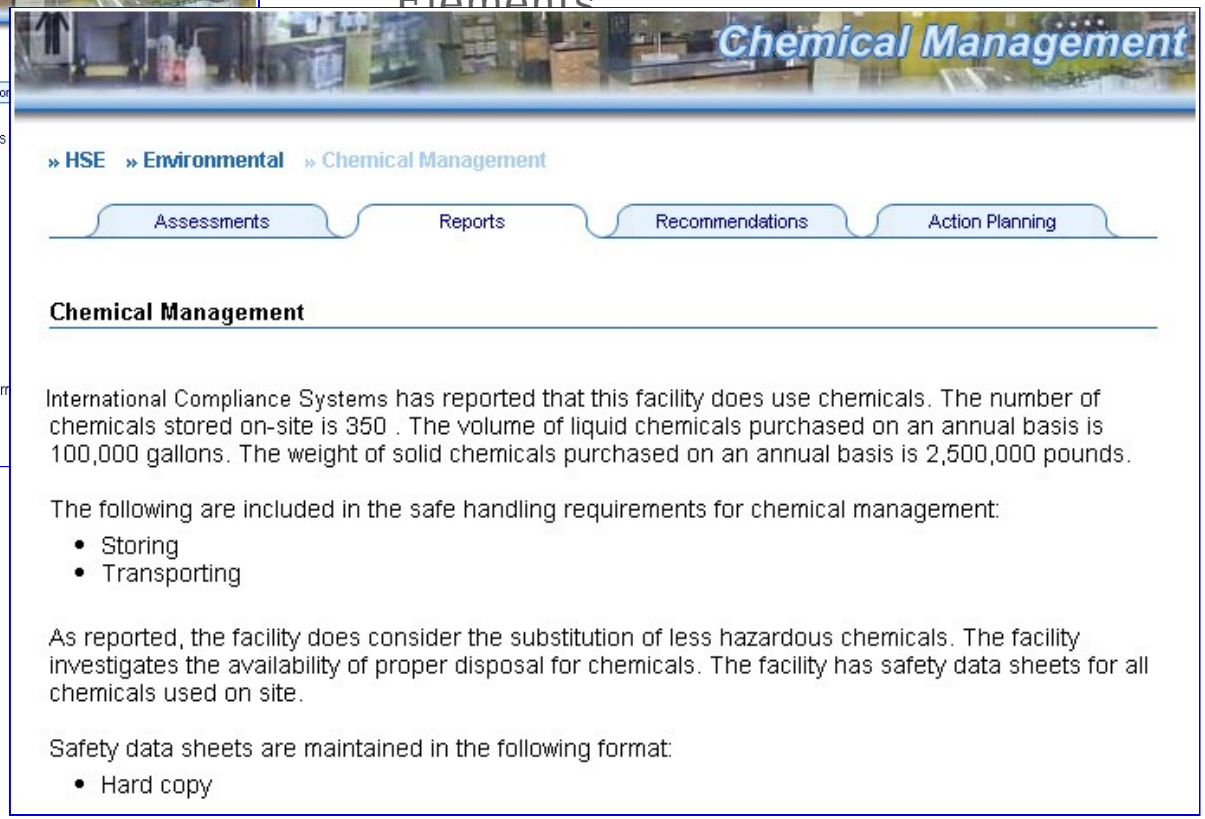
Step II – Education & Self Auditing

- **Assess, audit, and identify compliance deficiencies.**
- **5 HSE categories; 43 subject areas; ~4,000 points.**
- **Management reports of current compliance status.**
- **Fully integrated Management Action Planning.**

Select appropriate compliance areas.

Evaluate specific compliance issues.

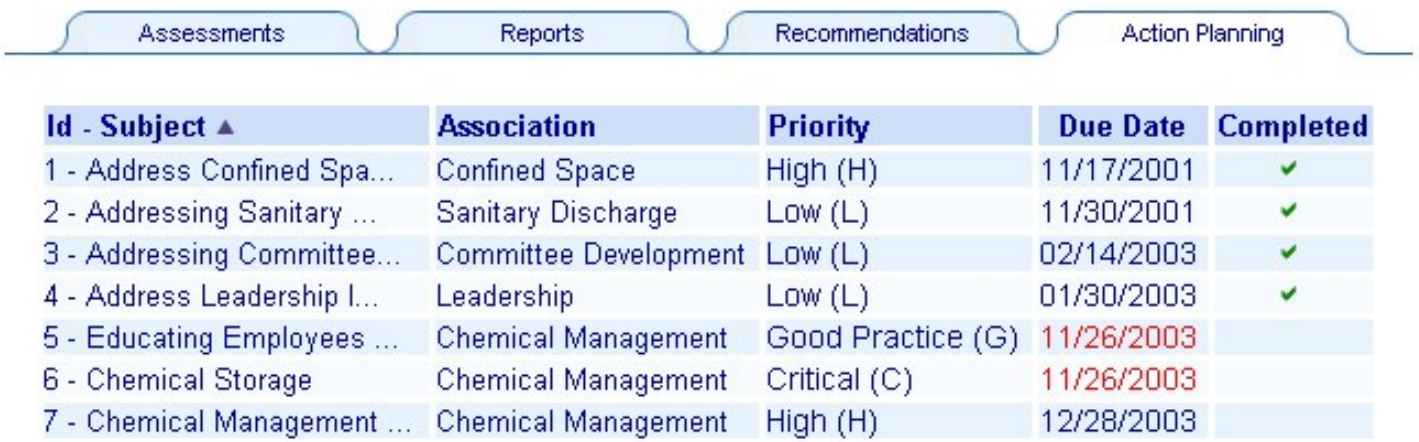
~ 4,000 Assessment Elements


Chemical Management
» HSE » Environmental » Chemical Management
Assessments
Reports
Recommendations
Action Planning
Chemical Management
International Compliance Systems has reported that this facility does use chemicals. The number of chemicals stored on-site is 350 . The volume of liquid chemicals purchased on an annual basis is 100,000 gallons. The weight of solid chemicals purchased on an annual basis is 2,500,000 pounds.
The following are included in the safe handling requirements for chemical management:
Storing
Transporting
As reported, the facility does consider the substitution of less hazardous chemicals. The facility investigates the availability of proper disposal for chemicals. The facility has safety data sheets for all chemicals used on site.
Safety data sheets are maintained in the following format:
Hard copy

Domestic & International

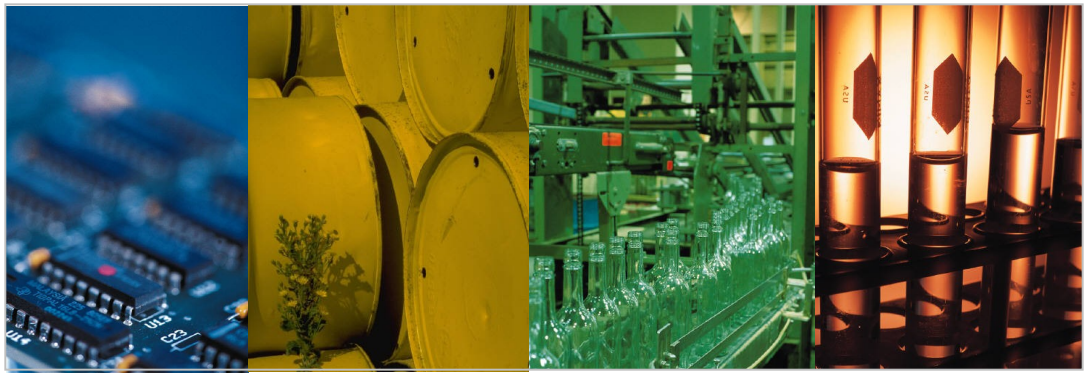
Assign responsibility and track progress.

Integrated management action planning with intelligent messaging.



Id - Subject ▲	Association	Priority	Due Date	Completed
1 - Address Confined Spa...	Confined Space	High (H)	11/17/2001	✔
2 - Addressing Sanitary ...	Sanitary Discharge	Low (L)	11/30/2001	✔
3 - Addressing Committee...	Committee Development	Low (L)	02/14/2003	✔
4 - Address Leadership I...	Leadership	Low (L)	01/30/2003	✔
5 - Educating Employees ...	Chemical Management	Good Practice (G)	11/26/2003	
6 - Chemical Storage	Chemical Management	Critical (C)	11/26/2003	
7 - Chemical Management ...	Chemical Management	High (H)	12/28/2003	

What next? Integrate accountability into every code to correct deficiencies and ensure ongoing compliance while maintaining a state of readiness.



Step III – Activity wide accountability

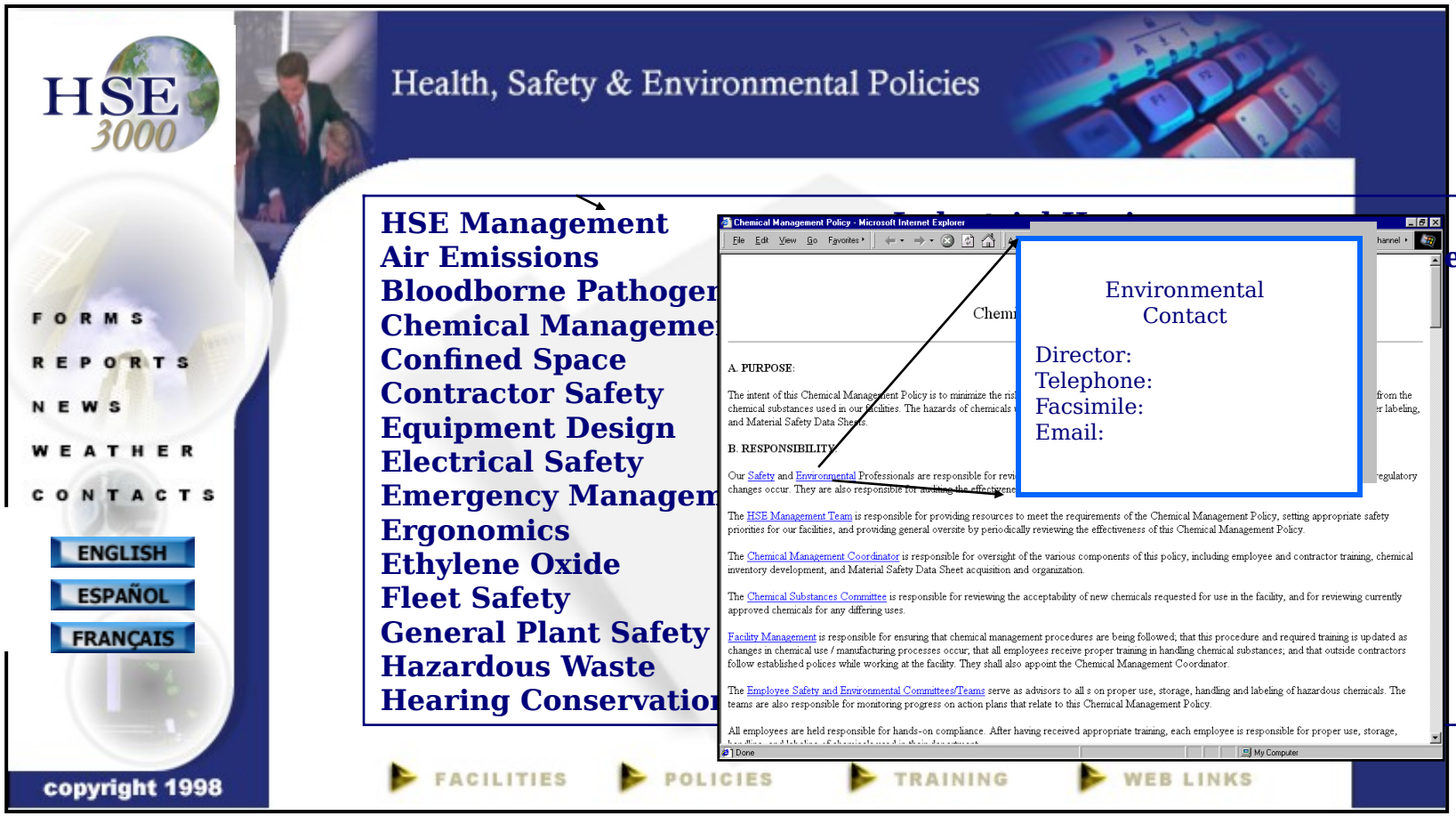
- Comprehensive compliance management system.
- Resolves ‘noncompliance’ in existing program.
- Ensures accountability for on-going compliance.
- Complete resources provided for global operation.
- Effectively integrates with existing operations.

HSE 3000

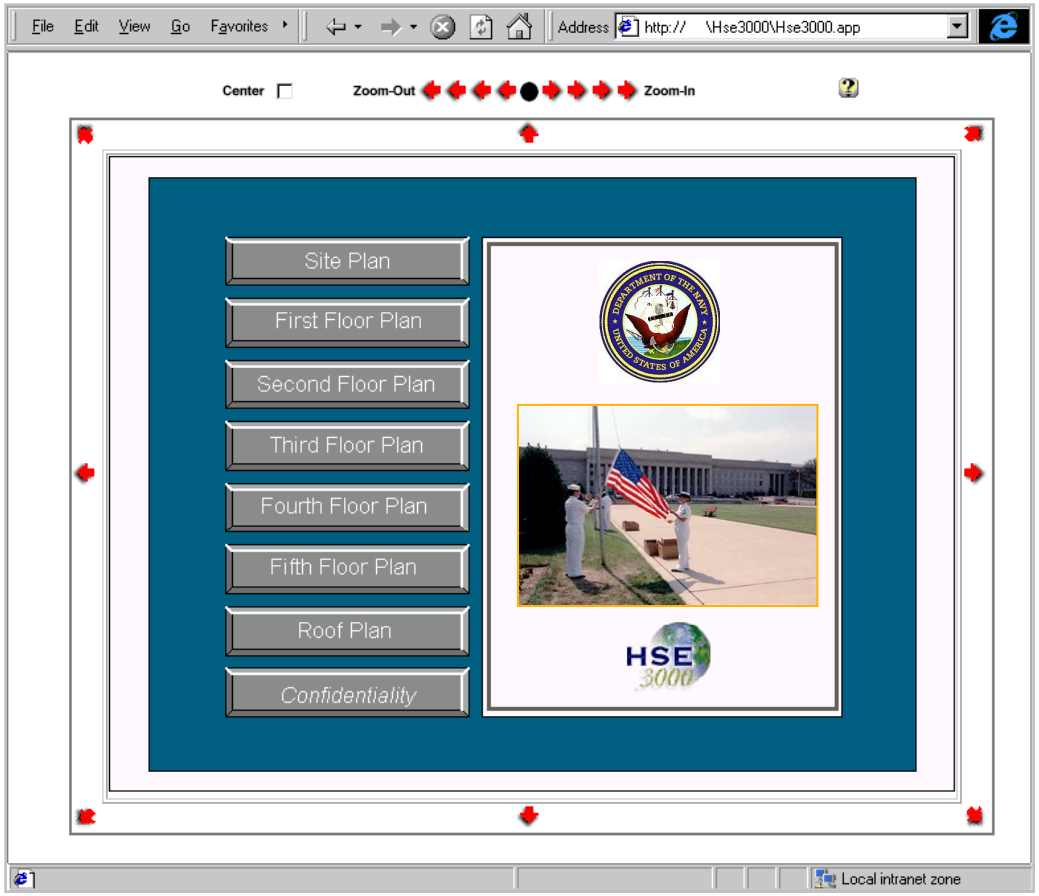
HEALTH, SAFETY & ENVIRONMENTAL

Managing Accountability for Compliance

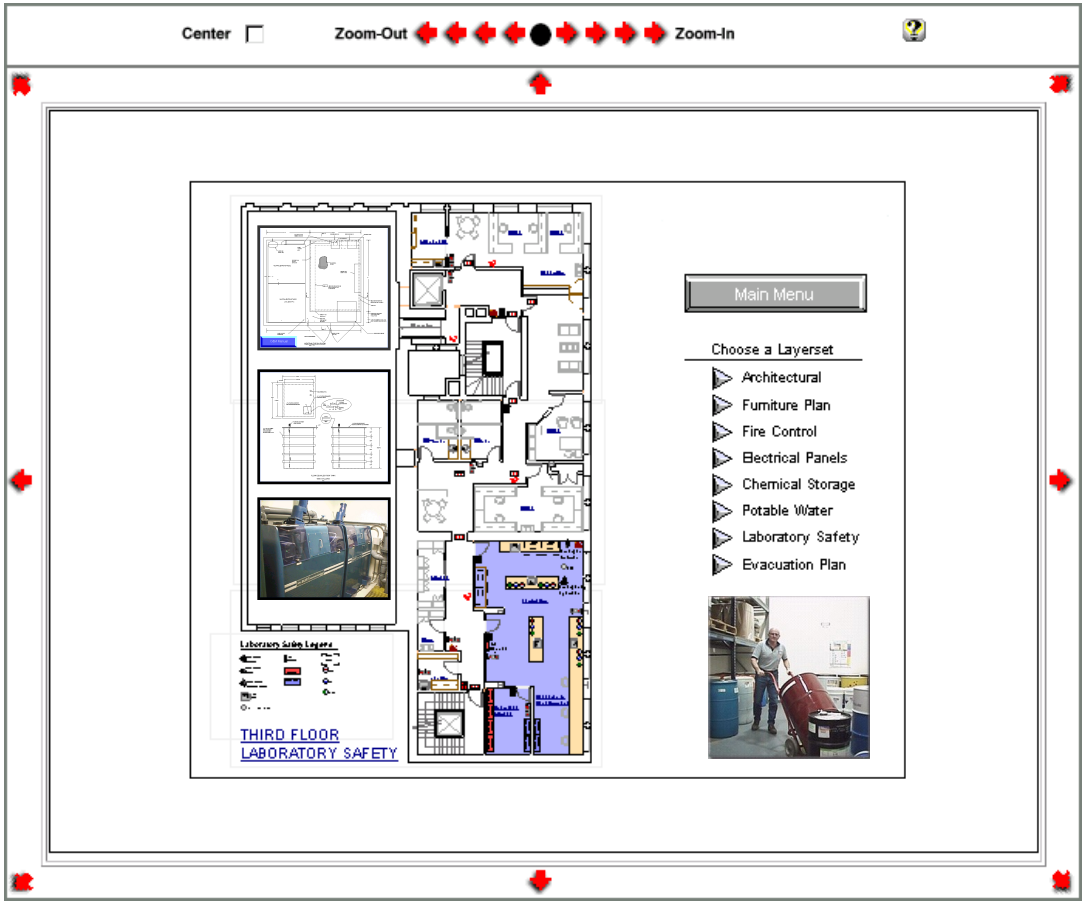
Current and Accurate Policies



Site specific facility drawings . . .



with detailed compliance data . . .



Compliance management modules . . .

Compliance profiles (site updates / changes)
Incident management; injury, illness, spill, fleet, behavior
Chemical management; approval, inventory & reporting
Equipment, design & installation; JSAs, Guarding, LO/TO
HSE auditing and evaluation; continuous improvement

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